

## ABSTRACT OF THE DISCLOSURE

A disclosed method for coating a substrate with an ionomer, applies the ionomer as a component of a stable foam, then dries the applied foam layer. The substrate to be so coated, in particular embodiments, is an electrode substrate, with or without a catalyst layer applied thereon. In another embodiment, the substrate is an ion-exchange membrane. In yet more particular embodiments, the substrate is suitable for use in an electrochemical fuel cell. Also disclosed are products made by the disclosed methods, namely, ionomer-coated substrates, including ionomer-coated electrode substrates and electrodes. The foam layer may also comprise catalyst powder to form a catalyst layer. Membrane electrode assemblies, fuel cells, and fuel cell stacks that incorporate the substrates are also disclosed, as are motor vehicles, and stationary and portable electrical power-generating plants that incorporate the fuel cell stacks.

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